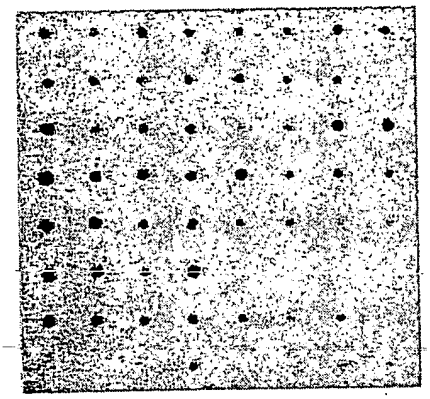
Zhou and Ehlert
P-UC 5016

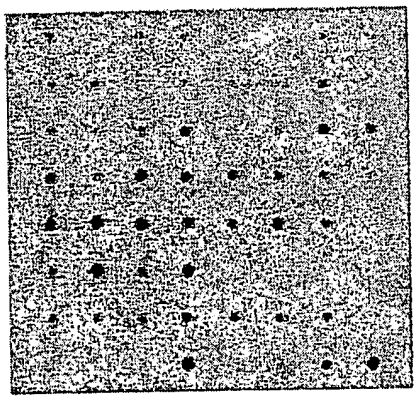
```
                                        ↓
A)        MRGATRVSIMLLLVTVSDC  AVITGA
B) MRSLCCAPLLLLLLLPPLLLTPRAGDA  AVITGA
C)        MKCFAQIVVLLLVIAFSHG  AVITGA
D)                             AVITGA

CERDVQCGAGTCCAISLWLRGLRMCTPLGREGEECHPG
CDKDSQCGGGMCCAVSIWVKSIRICTPMGKLGDSCHPL
CDKDVQCGSGTCCAASAWSRNIRFCIPLGNSGEDCHPA
CERDLQCGKGTCCAVSLWIKSVRVCTPVGTSGEDCHPA
*     *    **           *          *

SHKVPFFRKRKHHTCPCLPNLLCSRFPDGRYRCSMDLKNINF
TRKVPFFGRRMHHTCPCLPGLACLRTSFNRFICLAQK
SHKVPYDGKRLSSLCPCKSGLTCSK.SGEKFKCS
SHKIPFSGQRMHHTCPCAPNLACVQTSPKKFKCLSKS
              * *     *         *
```

FIGURE 1

A



B



C

	1	2	3	4	5	6	7	8
A	whole brain	amygdala	caudate nucleus	cere-bellum	cerebral cortex	frontal lobe	hippo-campus	medulla oblongata
B	occipital lobe	putamen	substantia nigra	temporal lobe	thalamus	nucleus accumbens	spinal cord	
C	heart	aorta	skeletal muscle	colon	bladder	uterus	prostate	stomach
D	testis	ovary	pancreas	pituitary gland	adrenal gland	thyroid gland	salivary gland	mammary gland
E	kidney	liver	small intestine	spleen	thymus	peripheral leukocyte	lymph node	bone marrow
F	appendix	lung	trachea	placenta				
G	fetal brain	fetal heart	fetal kidney	fetal liver	fetal spleen	fetal thymus	fetal lung	
H	yeast total RNA 100ng	yeast tRNA 100ng	E.coli rRNA 100ng	E.coli DNA 100ng	poly rA 100ng	human c-DNA 100ng	human DNA 100ng	human DNA 500ng

D

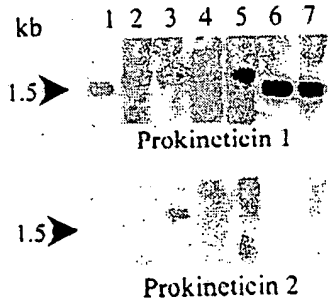


FIGURE 2

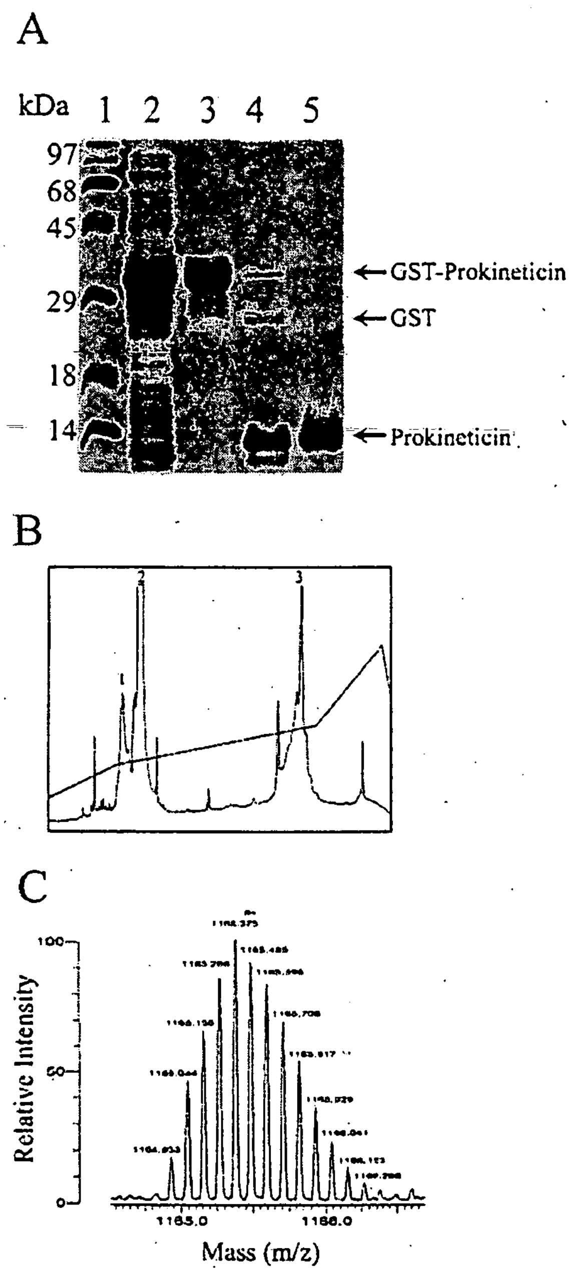

A
kDa 1 2 3 4 5
97
68
45
29
18
14
GST-Prokineticin
GST
Prokineticin
B
1
2
3
C
Relative Intensity
100
50
0
1165.0
1166.0
Mass (m/z)

FIGURE 3

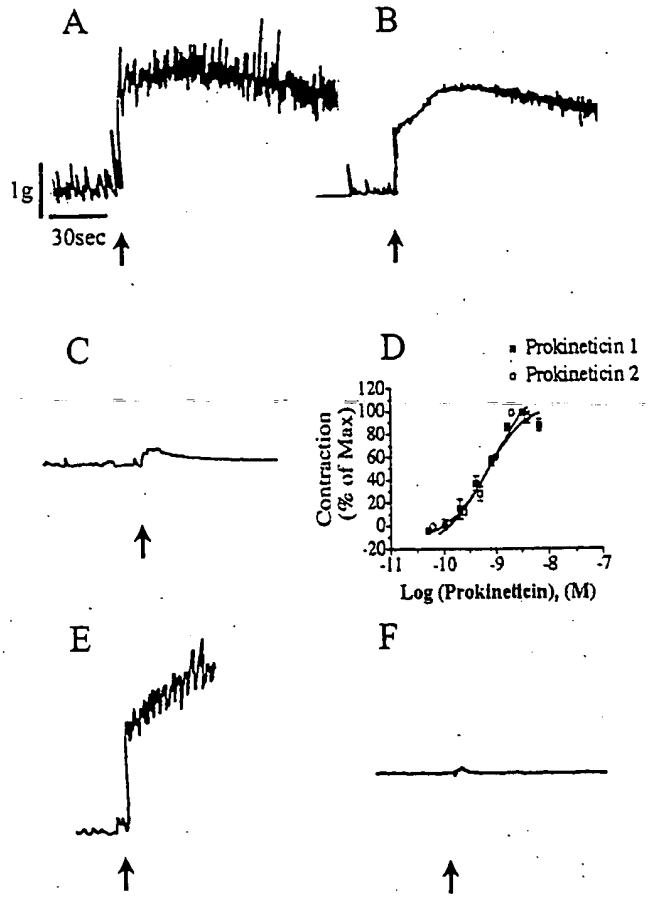
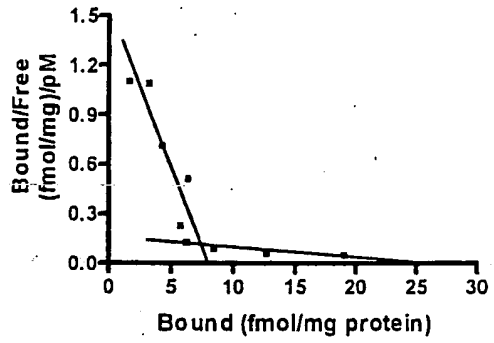

A
B
1g
30sec
C
D
Prokineticin 1
Prokineticin 2
Contraction (% of Max)
120
100
80
60
40
20
0
-20
-11
-10
-9
-8
-7
Log (Prokineticin), (M)
E
F

FIGURE 4

A



B

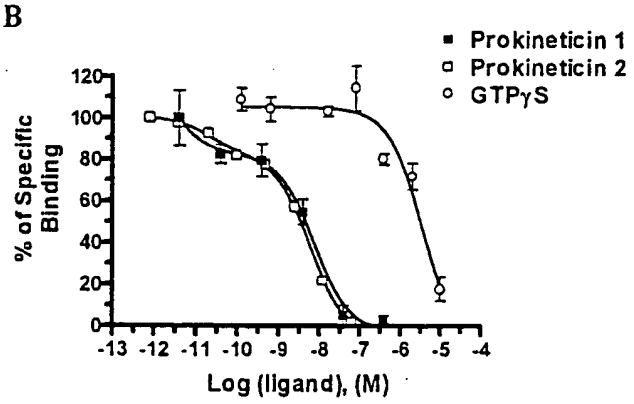


FIGURE 5

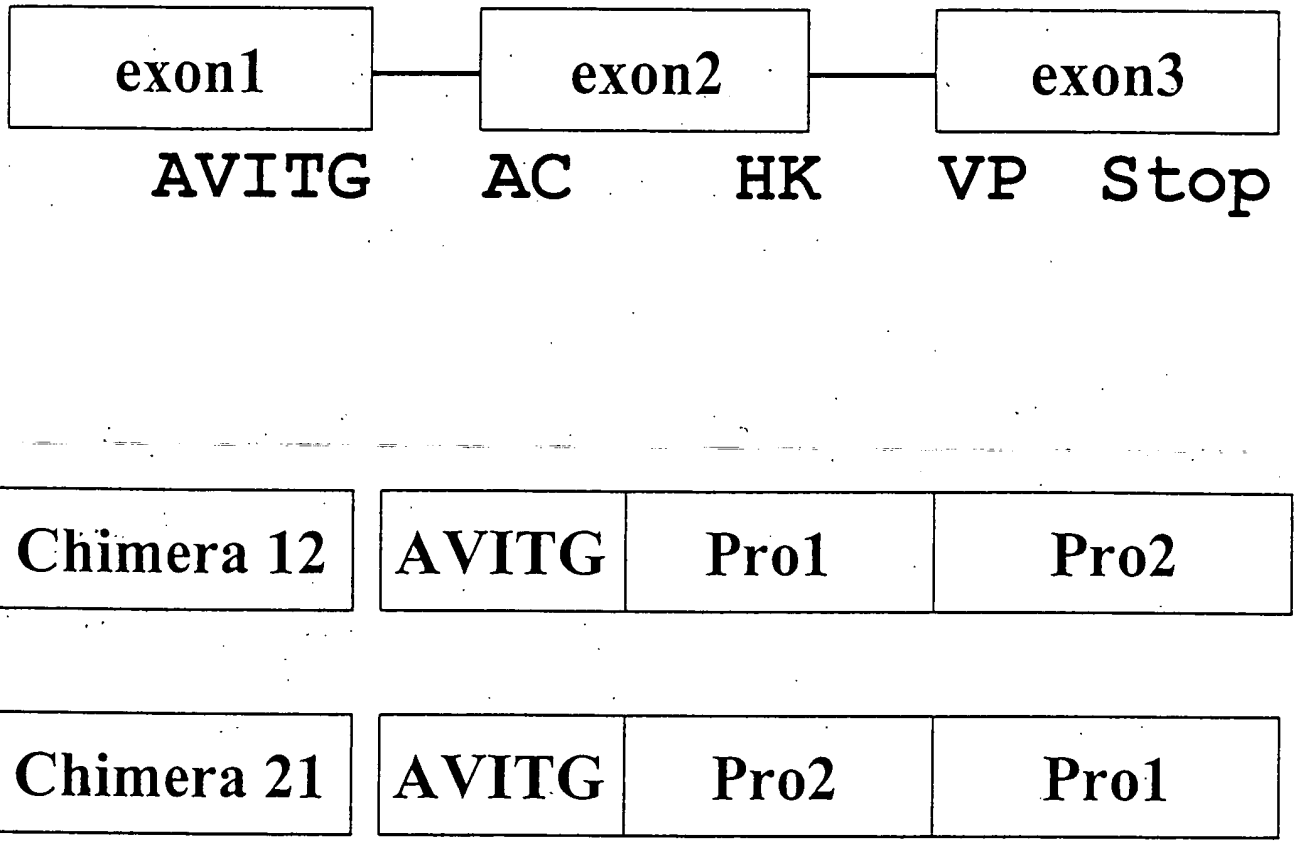
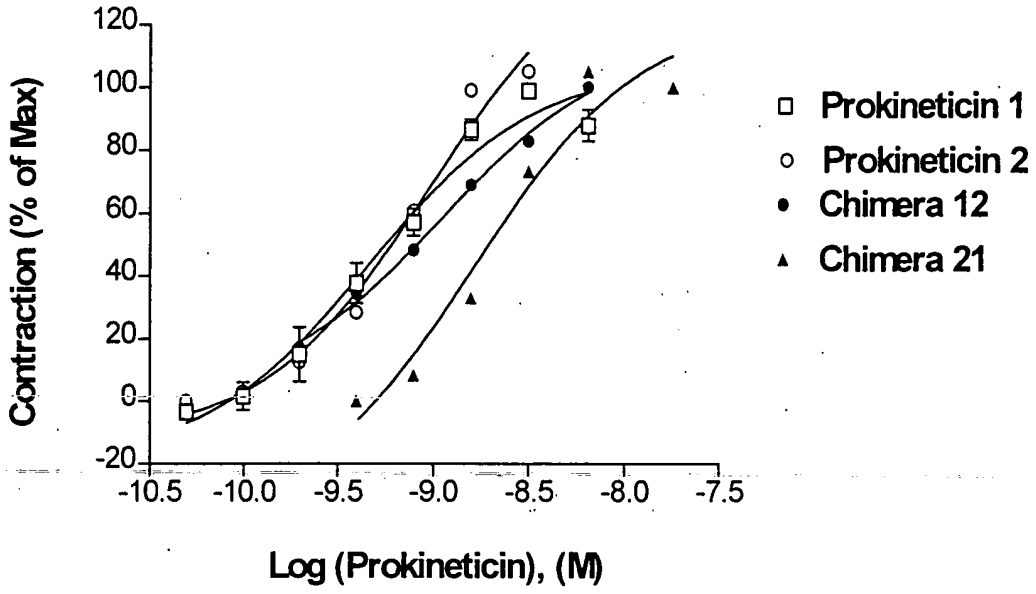

exon1
exon2
exon3
AVITG
AC
HK
VP
Stop
Chimera 12
AVITG
Pro1
Pro2
Chimera 21
AVITG
Pro2
Pro1

FIGURE 6

A


Contraction (% of Max)
120
100
80
60
40
20
0
-20
-10.5
-10.0
-9.5
-9.0
-8.5
-8.0
-7.5
Log (Prokineticin), (M)
Prokineticin 1
Prokineticin 2
Chimera 12
Chimera 21

B

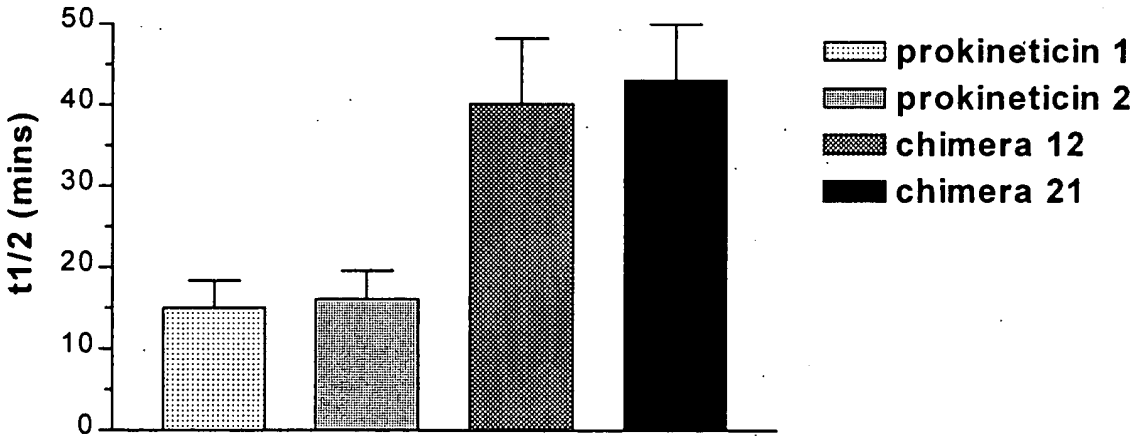
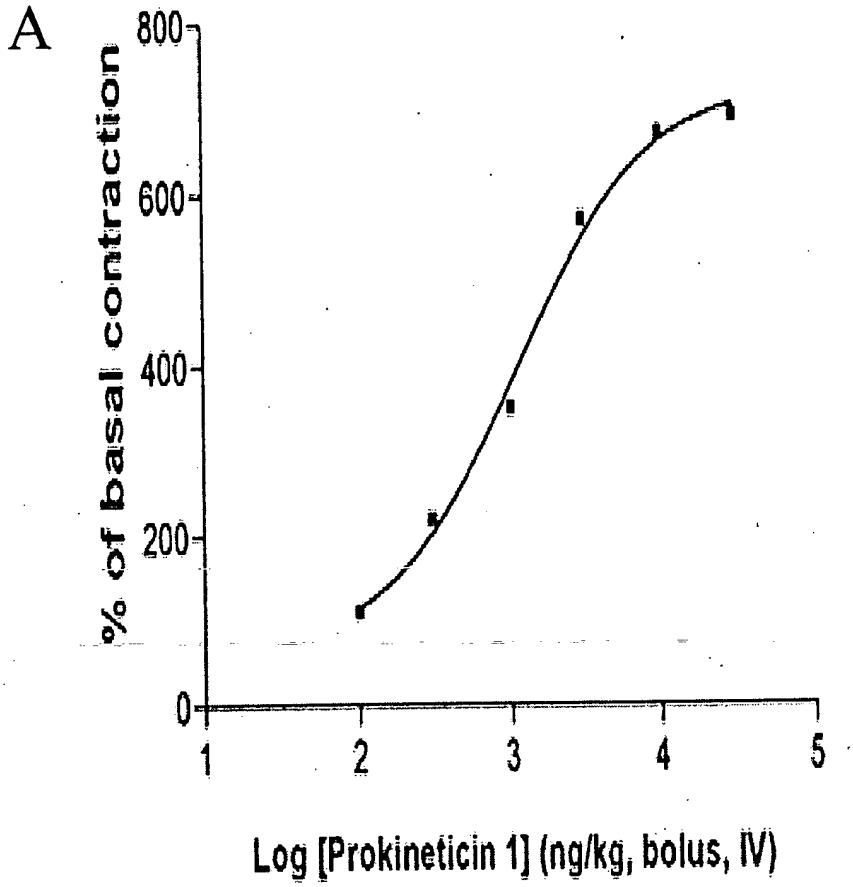

t1/2 (mins)
50
40
30
20
10
0
prokineticin 1
prokineticin 2
chimera 12
chimera 21

FIGURE 7


A
800
600
400
200
0
% of basal contraction
1
2
3
4
5
Log [Prokineticin 1] (ng/kg, bolus, IV)

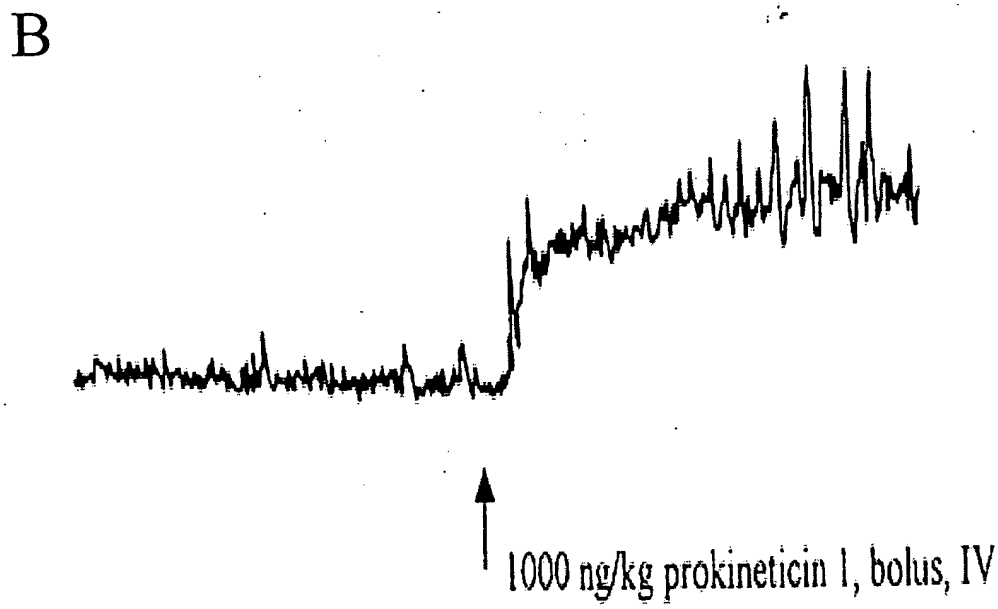

B
1000 ng/kg prokineticin 1, bolus, IV

FIGURE 8

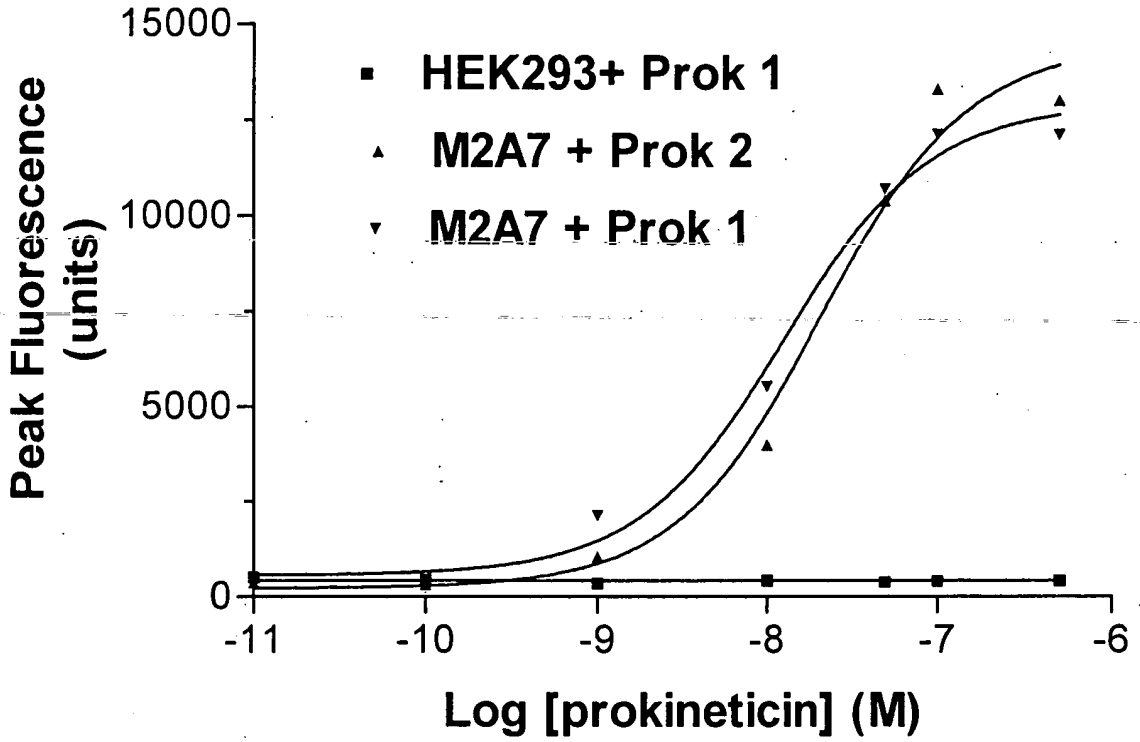

15000
10000
5000
0
Peak Fluorescence (units)
HEK293+ Prok 1
M2A7 + Prok 2
M2A7 + Prok 1
-11
-10
-9
-8
-7
-6
Log [prokineticin] (M)

FIGURE 9